

WHAT IS CLAIMED IS:

1. An electronic package comprising:  
  
a circuit board;  
  
a capsule layer encasing said circuit board and in intimate contact therewith, thereby forming a sealed immersible electronic module; and  
  
a housing receiving said electronic module and forming a protective shell around said electronic module.
2. An electronic package in accordance with claim 1 wherein said circuit board includes at least one sensor coupled thereto.
3. An electronic package in accordance with claim 2 wherein said sensor is a hall effect sensor.
3. An electronic package in accordance with claim 1 wherein said capsule layer comprises a melt processible rubber.
4. An electronic package in accordance with claim 1 wherein said housing comprises a longitudinal axis and an elongated opening extending transverse to said longitudinal axis for adjusting a position of said housing.
5. An electronic package in accordance with claim 1 wherein said housing comprises a mounting stud.
6. An electronic package in accordance with claim 1, wherein said housing comprises at least one indicator bar.
7. An electronic package in accordance with claim 1 wherein one of said capsule layer and said housing comprises a latch configured to engage the other of said capsule layer and said housing.
8. An electronic package in accordance with claim 1 further comprising a magnetic plate, said magnetic plate positioned beneath said circuit board and encased in said capsule layer.

9. An electronic package comprising:

an electronic assembly overmolded with a capsule layer, said electronic assembly configured to output a signal in response to a condition of a monitored object;

a housing having a bore therein configured to receive said overmolded electronic assembly, and

one of said capsule layer and said housing comprising a latch configured to engage the other of said capsule layer and said housing.

10. An electronic package in accordance with claim 9 wherein said housing comprises a longitudinal axis and a positioning aperture extending transversely to said longitudinal axis.

11. An electronic package in accordance with claim 9 wherein said electronic assembly includes at least one sensor.

12. An electronic package in accordance with claim 11 wherein said sensor is a hall effect sensor.

13. An electronic package in accordance with claim 9 wherein said capsule layer comprises a melt processible rubber.

14. An electronic package in accordance with claim 9 wherein said housing comprises a longitudinal axis, and an elongated positioning opening extending transverse to said longitudinal axis.

15. An electronic package in accordance with claim 9 wherein said housing comprises a mounting stud.

16. An electronic package in accordance with claim 9 further comprising at least one indicator bar coupled to said housing to visually indicate the condition of the monitored object.

17. An electronic package in accordance with claim 9 wherein said electronic assembly comprises a magnetic plate, said magnetic plate positioned beneath said circuit board and encased in said capsule layer.

18. A method of packaging an electronic assembly subject to a severe operating environment, said method comprising:

encapsulating the electronic assembly to form a sealed immersible electronic module;

fitting the encapsulated electronic assembly into a housing shell; and

securing the encapsulated module to the housing shell.

19. A method in accordance with claim 18 wherein said encapsulating the electronic assembly comprises overmolding the electronic assembly.

20. A method in accordance with claim 19 wherein said overmolding the electronic assembly comprises overmolding the electronic assembly with a melt processible rubber.

21. A method in accordance with claim 18 wherein fitting the encapsulated module to the housing shell comprises inserting the encapsulated module into a thixo-molded housing.

22. A method in accordance with claim 18 wherein fitting the encapsulated module to the housing shell comprises inserting an end of the encapsulated module into an end of the housing shell, and sliding the encapsulated module into the housing.

23. A method in accordance with claim 18 wherein one of the encapsulated module and the housing shell includes a latch member formed therein, said step of securing the encapsulated module to the housing shell comprising engaging the latch member to the other of the encapsulated module and the housing shell.

24. A method in accordance with claim 18 wherein the electronic assembly includes a cable, said step of encapsulating the electronic assembly to form an

electronic module comprising overmolding the electronic assembly and a portion of the cable.